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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,254

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Erich Steinhardt

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EXAMINER

HEINRICH, SAMUEL M

ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

10/08/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,254	Applicant(s) STEINHARDT, ERICH	
	Examiner Samuel M. Heinrich	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 2,920,868 to Ackerman et al in view of USPN 5,701,669 to Meier in view of USPN 4,484,959 to Boucher et al.

Ackerman et al show (Front Page) and describe (column 2) manufacture of a blade for turbine application. Ackerman et al describe (Title) dampened blade structure and show (Front Page) the dampening structure is enclosed on all sides.

Meier describes (column 3, lines 39-62) powder build up welding of turbine blades using a laser beam for deposit welding.

Boucher et al describe (Abstract) a composite having different core and surface material property characteristics. Boucher et al describe (column 3, lines 36-60) composite construction wherein a core is a low-alloy structural steel and the surface layer is hard.

The instant claims would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the blade having different characteristics in the core and surface is very old and well known and because laser

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build up welding of turbine blades minimizes heat input to the turbine blade and provides accurate desired construction of composite components.

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN2,920,868 to Ackerman et al in view of USPN 5,701,669 to Meier in view of USPN 4,484,959 to Boucher et al as applied to claim 13 above, and further in view of USPN 3,697,192 to Hayes.

Hayes describes (e.g., Abstract) well known forming of a hollow blade and forming an insert and assembly of the insert into the hollow blade. Use of this blade and insert construction would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because both blade and insert can be independently manufactured at dedicated work stations.

Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN2,920,868 to Ackerman et al in view of USPN 5,701,669 to Meier in view of USPN 4,484,959 to Boucher et al as applied to claim 13 above, and further in view of USPN 6,269,540 to Islam et al.

Islam et al describe (column 4, lines 1-3) manufacture of a turbine engine rotor having integral blading comprising laser powder build up welding and the use thereof would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because it provides rapid fabrication of complex components.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 2,920,868 to Ackerman et al in view of USPN 5,701,669 to Meier in view of

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USPN 4,484,959 to Boucher et al in view of USPN 6,269,540 to Islam et al as applied to claim 21 above, and further in view of USPN 5,038,014 to Pratt et al.

Pratt et al describe (column 4, lines 20-24) well known fabrication of blades and blisks using material such as ceramic and the use thereof would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the material provides properties suitable for the intended use.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 2,920,868 to Ackerman et al in view of USPN 5,701,669 to Meier in view of USPN 4,484,959 to Boucher et al in view of USPN 6,269,540 to Islam et al as applied to claim 21 above, and further in view of USPN 6,682,253 to Binna et al.

Binna et al describe (column 2, lines 31-42) well known welding method comprising weld cladding using powders and the use thereof would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the method provides for accurate fit-up of complex workpieces prior to welding.

Response to Arguments

Applicant's arguments with respect to claims 13-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art pertains to laser powder buildup welding.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu B. Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Samuel M Heinrich/
Primary Examiner, Art Unit 3742